

**STATEMENT OF WORK**  
**Lower Fox River**  
**Sediment Management Unit 56/57 Removal Action**

**I. INTRODUCTION**

**A. Purpose**

The purpose of this Statement of Work ("SOW") is to set forth the requirements for performance of a removal action involving dredging of contaminated sediment from a portion of the area known as Sediment Management Unit ("SMU") 56/57, located in the vicinity of the Fort James Corporation facility located on the west bank of the Lower Fox River, Wisconsin. The work is being conducted under Administrative Order by Consent No. \_\_\_\_\_ ("AOC"), to which this SOW is attached.

**B. Description of Removal Action**

1. Respondent will use hydraulic dredging to remove contaminated sediment from certain subunits of SMU 56/57, as numbered on Figure 1 attached to this SOW, in two phases. Phase I will remove sediment from all areas in subunits 12, 13, 14, 15, 16, 17, 23, 24, 25, 26, 27, 28, and portions of subunits 18, and 29. In order to obtain stable side slopes, sediments from portions of subunits 34, 35, 35, 36, 37, 38, 39, and 40 ("Phase I Subunits") will be removed. If the project does not enter Phase II, then sediments from portions of 18 and 29 will be removed for side slope stabilization. The foregoing will be collectively referred to as "Phase I Subunits." The approximate horizontal extent of Phase I dredging is shown on Figure 1. The vertical extent of dredging will be determined by the Cleanup Objectives, as defined below, subject to the limitations contained in this Paragraph I.B.1. Phase II will remove sediment from the remaining portions of subunits 18, 36, 37, 38, and 39, and from all or part of subunits 19, 29, 30, 40, 41, 46, 47, 48, 49, 50, and 51 ("Phase II Subunits"). Respondent shall not be required to remove more than a total of 50,000 cubic yards ("CY") of in-place sediment from the Phase I and II Subunits, given the need to preserve stable side slopes, avoid leaving residual elevated PCB concentrations, and remain within the remaining capacity of the Fort James Green Bay Landfill Cell 12A ("Cell 12A") located at Respondent's Green Bay Landfill (WDNR Lic. #2332), which has been approved to receive dewatered sediments containing over 50 parts per million ("ppm") PCBs ("TSCA-level Sediments"). The Phase II Subunits will be dredged only to the extent that Respondent can meet the Cleanup Objectives, establish stable side slopes, and remain within the 50,000 CY volume limit. All dredged sediment will be dewatered and made suitable for placement in Cell 12A. Respondent will properly dispose of all TSCA-level Sediments in Cell 12A and the balance of the PCB-contaminated sediments, if any, as provided in Section II.E of this SOW.

2. Respondent will construct access roads, staging areas, work pads, and other infrastructure as necessary to accomplish the required sediment dredging, dewatering, stabilization, truck loading, truck washing, parking, and associated activities.

3. Respondent will provide or obtain the necessary utilities, site security, and support services to complete the project.

4. At the completion of the response activities, Respondent will restore the onshore area used for the response action to a stable and secure status as determined by Respondent, the owner of the onshore area.

### **C. Cleanup Objectives**

As part of the Removal Design, discussed in Section II.A.2 of this SOW, target dredging elevations will be established for the Phase I and Phase II Subunits based on the goal of attaining a residual surficial PCB concentration (defined for purposes of this SOW as the upper four inches of sediment after dredging) of approximately 1 ppm, establishing stable side slopes at the conclusion of the dredging, and remaining within the 50,000 CY volume limitation, using existing data and estimated cross-sections of SMU 56/57. Dredging of each subunit will proceed until any of the following Cleanup Objectives is met:

Post-dredging sampling of the subunit pursuant to Section II.F of this SOW indicates that a surficial sediment concentration of 1 ppm PCBs or less has been attained; or

Post-dredging sampling of the subunit pursuant to Section II.F of this SOW indicates that a surficial sediment concentration of 10 ppm PCBs or less has been attained and Respondent will place six inches of clean sand over the entire subunit; or

Post-dredging sampling of all subunits in each Phase pursuant to Section II.F of this SOW indicates that a surficial sediment concentration of 10 ppm PCBs or less has been attained in 90% of the subunits in that Phase, the surficial sediment concentration does not exceed 25 ppm in any subunit in that Phase, the average surficial sediment concentration of all subunits in that Phase is less than or equal to 10 ppm, and Respondent will place six inches of clean sand over all subunits that have not attained a surficial sediment concentration of 1 ppm PCBs or less.

If the U.S. EPA On-Scene Coordinator (“OSC”) makes a determination, in consultation with the WDNR On-Scene Representative (“OSR”), that achieving a surficial sediment concentration of 10 ppm PCBs or less in a given subunit is impracticable or undesirable (e.g., due to the need to maintain appropriate side slopes), the Cleanup Objectives will be

deemed to have been met in that subunit, as long as Respondent will place six inches of clean sand over the entire subunit. The foregoing Cleanup Objectives do not apply to the side slopes of the subunits at the perimeter of the dredged area, which shall be designed to minimize sloughing or slumping into the dredged area. All dredged side slopes will be covered with six inches of clean sand.

**D. Applicable or Relevant and Appropriate Requirements to be Considered**

Permits are not required for this project pursuant to CERCLA Section 121(e)(1). The following substantive requirements will be met to the extent that they are applicable, or to the extent that they are relevant and appropriate and do not interfere with expeditious completion of the project:

The substantive requirements of the letter dated 11-03-98 from the US Army Corps of Engineers, except that Respondent may seek to modify such requirements based on the results of the Demonstration Project.<sup>1</sup>

The substantive requirements of WDNR dredging permit No. 3-NE-99-0341LF, except that Respondent may seek to modify such requirements based on the results of the Demonstration Project.

The water discharge limitations set forth in WPDES Permit No. WI-0049735, except that Respondent may seek to modify such requirements based on the results of the Demonstration Project.

Substantive State solid waste disposal requirements, including requirements contained in WDNR's existing approval of Cell 12A.

**E. Removal Implementation**

The removal action to be implemented will consist of the following elements:

Design Activities;  
Contractor Selection;  
Construction Oversight;  
Dredging and Processing;  
TSCA and Non-TSCA Disposal; and  
Confirmatory Sampling

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<sup>1</sup> SMU 56/57 was the location of a demonstration dredging project in 1999 that will be referred to as the "Demonstration Project" throughout this Statement of Work. The detailed design for the Demonstration Project is a document entitled "Basis of Design Report" (Montgomery Watson 1998).

These steps are described below and shall be completed in accordance with the schedule provided below.

## **II. WORK TO BE PERFORMED**

### **A. Design Activities**

#### **1. Planning Phase**

Respondent will complete the planning phase following the execution of the AOC. The planning phase will consist of the pre-design activities described below. The results of these activities will serve to supplement the Basis of Design Report for the previously conducted Demonstration Project.

##### **a. Compilation and Assessment of Existing Sediment Contamination Data**

Relevant data developed before and after the Demonstration Project will be evaluated and summarized to identify data gaps and support the proposed methods for completing the remediation of the disturbed area and selected adjacent cells.

##### **b. Evaluation of Dredging, Processing, and Disposal Options**

Based on the data assessment and an evaluation of the results of the Demonstration Project, Respondent will recommend modifications to the Basis of Design Report and relevant associated documents that will allow for the efficient completion of this removal action.

##### **c. Supplemental Sampling**

Based on an initial evaluation of available relevant data, the following supplemental sampling activities may be necessary:

Supplementary Geo-technical Borings -- Additional geotechnical borings may be taken to further define the grain size, degree of consolidation and possibly other geotechnical characteristics of the sediments in the disturbed area and selected adjacent cells.

Pre-dredging Bathymetry -- Sloughing and siltation in the disturbed area may have occurred over the last 6 months since Demonstration Project dredging was completed. In order to project depth and quantities accurately a new pre-dredging survey will be conducted.

## 2. Removal Design

Based on the evaluation of the Demonstration Project and the available results of the pre-design activities, certain modifications to the plan described in the Basis of Design Report may enhance the efficiency of the dredging, sediment treatment, and water treatment operations. Respondent will refine these modifications and describe them in a technical memorandum entitled “Work Plan/Design Memorandum,” which will be submitted to the USEPA and WDNR for review and approval. Respondent anticipates the Work Plan/Design Memorandum will generally refer to the Basis of Design Report and will be limited to describing the modifications to that report. Target dredging elevations will be established for the Phase I and Phase II Subunits based on the goal of attaining a residual surficial PCB concentration (defined for purposes of this SOW as the upper four inches after dredging) of approximately 1 ppm, establishing stable side slopes at the conclusion of the dredging, and remaining within the 50,000 CY volume limitation, using existing data and estimated cross-sections of SMU 56/57.

### **B. Contractor Selection**

Respondent will conduct a two-step contractor selection process. The first step will be pre-qualification, including; checking references, visiting similar dredging project sites and visiting the offices of potential contractors. The second step will be solicitation of bids from qualified contractors.

### **C. Construction Oversight**

Respondent will identify an employee or third party to provide full time oversight of the dredging, dewatering, and disposal operation.

### **D. Dredging and Processing**

Respondent will excavate contaminated sediments from the subunits listed in Section I.B. of this SOW pursuant to the approved Work Plan/Design Memorandum until the Cleanup Objectives and appropriate side slopes are achieved. Dredging will first occur in the Phase I Subunits. To avoid any unnecessary interruption in the progress of the work, the OSC, OSR, and Respondent will consult after Confirmatory Sampling of 75% or more of the Phase I Subunits have been dredged. The OSC shall determine in consultation with the WDNR OSR, based on the available data, whether objectives are consistently being met in the areas dredged to-date, and whether dredging may proceed in the Phase II Subunits upon completion of Phase I. The dredging will be implemented in a manner to ensure that the volume of the dredged sediments does not exceed 50,000 CY, the volume of the dredged, dewatered and treated sediments does not exceed the remaining capacity of Cell 12A, and the side slopes on the outer perimeter of the dredged area are stable. Respondent will place six inches of clean sand on all side slopes after the dredging has concluded, and will place six inches of clean sand on any subunits as needed to attain the

Cleanup Objectives.

Dredged material will be dewatered using mechanical means. A combination of passive dewatering in lagoons and batch processing through agitated tanks may be employed to maximize the volume removed in the shortest time. Prior to transportation, dewatered sediment will be stabilized, if necessary, in order to pass the RCRA "paint filter test."

#### **E. TSCA and Non-TSCA Disposal**

Dewatered and stabilized sediments will be separated in batches of 2,000 CY or less, sampled for PCBs, and tested for free liquids (RCRA paint filter test) and other relevant geotechnical characteristics as needed. Batches or piles having a PCB concentration greater than or equal to 50 ppm will be transported to and disposed of in Cell 12A of the Fort James Green Bay Landfill. Batches or piles having a PCB concentration less than 50 ppm will be transported to and disposed of in: (i) Cell 12A; (ii) a cell other than Cell 12A at Fort James Green Bay Landfill as may be agreed to by WDNR and Respondent; or (iii) some other disposal facility as may be agreed to by WDNR and Respondent.

#### **F. Confirmatory Sampling**

Respondent shall conduct Confirmatory Sampling under this section to determine whether the Cleanup Objectives have been met. The Confirmatory Sampling shall be conducted consistent with the Sampling and Analysis Plan ("SAP") discussed in Section III.A. of this SOW. After the approximate target elevation of each subunit has been reached, Respondent will collect and analyze one sample of the surficial sediment (the top four inches) in that subunit for PCBs. If the sample result is greater than 10 ppm PCBs, Respondent either may collect and composite four or more additional samples of surficial sediment from the subunit and analyze the composited sample for PCBs to determine whether the Cleanup Objectives have been met, or may conduct additional dredging of the subunit before conducting further Confirmatory Sampling. Respondent also will conduct a post dredging bathymetric survey of the dredged area after each phase of dredging has been completed.

### **III. ADDITIONAL ACTIVITIES**

The following additional activities will also be conducted as part of the removal action.

#### **A. Sampling and Analysis Plan**

Respondent will prepare and submit a Sampling and Analysis Plan that will describe the procedures and analytical techniques to be used for the following required sampling and monitoring:

Turbidity and Water Column PCB Monitoring--During dredging operations,

turbidity measurements will be taken at one station upstream and one station downstream of the work. The existing upstream station at the Fort James intake will be used for the upstream measurements. Upstream turbidity measurements will be compared to downstream turbidity measurements. An in-stream water column sample will be collected and analyzed for PCBs when turbidity measured by the downstream station is significantly higher than the turbidity measured by the upstream station ("Trigger Level") and the source of the increased turbidity is demonstrated to be the dredging. The Trigger Level will be specified in the final approved Work Plan/Design Memorandum.

Dewatered Sediment Sampling--Dewatered and stabilized sediments will be separated in batches of 2,000 CY or less. Each batch will be sampled for PCBs and tested for free liquids (RCRA paint filter test) and other relevant geotechnical characteristics as needed.

- Post-Dredging Confirmatory Sampling--Surficial sediments will be analyzed for PCBs as provided in Section II.F of this SOW.

Effluent Sampling--Samples of treated effluent from the project will be obtained and analyzed as directed by the OSC and OSR; provided however that, any such sampling and analysis will not be more frequent nor involve more constituents than required by the WPDES permit issued in connection with the Demonstration Project.

Post-Dredging Bathymetric Survey--A post dredging bathymetric survey will be conducted.

## **B. Health and Safety Plan**

Respondent will review the Health and Safety Plan prepared for the Demonstration Project and the onsite safety history during that project. Based on that evaluation and considering proposed modifications to the dredging program, a modified plan will be developed, if necessary.

## **C. Quality Assurance Project Plan**

Sampling and analyses will be conducted in accordance with an approved Quality Assurance Project Plan.

#### **IV. PROJECT SCHEDULE**

The following milestones are established for the project:

Work Plan/Design Memorandum - 30 days after Respondent receives AOC executed by EPA and WDNR

Sampling and Analysis Plan - 30 days after Respondent receives AOC executed by EPA and WDNR

Health and Safety Plan - 30 days after Respondent receives AOC executed by EPA and WDNR

Quality Assurance Project Plan - 30 days after Respondent receives AOC executed by EPA and WDNR

Selection of Contractor - 45 days after Respondent receives AOC executed by EPA and WDNR

Begin Contractor Mobilization to Site - 30 days after receipt of EPA/WDNR written approval of Work Plan/Design Memorandum

Start of Dredging - 60 days after receipt of EPA/WDNR written approval of Work Plan/Design Memorandum